

Title (en)  
IMPROVED SYSTEMS AND METHODS FOR MEDICINE DELIVERY

Title (de)  
VERBESSERTE SYSTEME UND VERFAHREN ZUR ARZNEIMITTELABGABE

Title (fr)  
SYSTÈMES ET PROCÉDÉS AMÉLIORÉS D'ADMINISTRATION DE MÉDICAMENT

Publication  
**EP 3209353 B1 20200715 (EN)**

Application  
**EP 15853441 A 20151020**

Priority

- US 201462066351 P 20141020
- US 2015056517 W 20151020

Abstract (en)  
[origin: WO2016064916A1] Improved systems and methods for medicine delivery, and in particular, improved insulin pen needles and related devices are provided. Smart injection devices record and transfer data including medicine level, delivered dose, dose confirmation, and dose time and date. Additional data captured may include glucose concentration, insulin level, carbohydrates ingested, stress level, exercise, blood pressure, and glucose high and low excursion events. Various means of data collection and analysis are provided and systems can identify and flag patients who require intervention. Smart sleeves and add sensing capability to standard insulin pens. Pen needles are provided with sensing capability to confirm and measure doses delivered by insulin pen. A two-part pen cap include a primary sleeve that connects to the insulin pen and an end cap that provides for capturing the time of dose delivery, and monitoring the hold time for a dose delivery after plunger movement.

IPC 8 full level  
**A61M 5/28** (2006.01); **A47G 21/00** (2006.01); **A61J 1/14** (2006.01); **A61J 7/04** (2006.01); **A61M 5/20** (2006.01); **A61M 5/24** (2006.01); **A61M 5/31** (2006.01); **A61M 5/315** (2006.01); **A61M 5/32** (2006.01); **A61M 5/34** (2006.01); **A61M 5/42** (2006.01); **A61M 39/02** (2006.01); **G01F 13/00** (2006.01); **G16H 20/17** (2018.01); **G16H 20/60** (2018.01)

CPC (source: EP US)  
**A47G 21/00** (2013.01 - EP US); **A61J 7/0436** (2015.05 - EP US); **A61J 7/0481** (2013.01 - EP US); **A61M 5/2422** (2013.01 - EP US); **A61M 5/28** (2013.01 - EP US); **A61M 5/281** (2013.01 - EP US); **A61M 5/31568** (2013.01 - US); **A61M 5/3202** (2013.01 - EP US); **A61M 5/3204** (2013.01 - US); **A61M 5/3278** (2013.01 - EP US); **A61M 5/34** (2013.01 - EP US); **A61M 5/345** (2013.01 - EP); **A61M 5/347** (2013.01 - EP US); **A61M 5/5086** (2013.01 - EP); **G09B 19/00** (2013.01 - US); **G16H 20/17** (2018.01 - EP US); **G16H 20/60** (2018.01 - EP US); **A61J 1/1412** (2013.01 - EP US); **A61J 2200/30** (2013.01 - EP US); **A61J 2200/70** (2013.01 - EP US); **A61J 2200/74** (2013.01 - EP US); **A61M 5/31525** (2013.01 - EP US); **A61M 5/427** (2013.01 - EP US); **A61M 2005/2073** (2013.01 - EP US); **A61M 2005/312** (2013.01 - EP); **A61M 2005/3258** (2013.01 - EP US); **A61M 2005/3267** (2013.01 - EP US); **A61M 2005/3284** (2013.01 - EP US); **A61M 2039/0267** (2013.01 - EP US); **A61M 2205/13** (2013.01 - EP US); **A61M 2205/15** (2013.01 - US); **A61M 2205/18** (2013.01 - US); **A61M 2205/3306** (2013.01 - EP US); **A61M 2205/3317** (2013.01 - US); **A61M 2205/3344** (2013.01 - US); **A61M 2205/3375** (2013.01 - US); **A61M 2205/3379** (2013.01 - EP US); **A61M 2205/3553** (2013.01 - EP US); **A61M 2205/3592** (2013.01 - US); **A61M 2205/50** (2013.01 - EP US); **A61M 2205/52** (2013.01 - US); **A61M 2205/6027** (2013.01 - EP US); **A61M 2205/6045** (2013.01 - EP US); **A61M 2205/6054** (2013.01 - EP US); **A61M 2205/80** (2013.01 - EP US); **A61M 2230/50** (2013.01 - US); **A61M 2230/63** (2013.01 - US); **G01F 13/00** (2013.01 - EP US)

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